

VARIABLE VALVE TIMING AND LIFT STRUCTURE FOR FOUR CYCLE ENGINE

Abstract of Disclosure

A variable valve timing and lift structure for a four-cycle internal combustion engine wherein a high speed and low speed cam are associated with the camshaft, each for operating the same valve. The high speed cam is supported for movement relative to the camshaft and this movement includes relative rotation. A coupling device selectively couples the second cam for rotation with the camshaft so as to operate the valve during at least a portion of its opening and closing movement when so coupled. When the second cam is not so coupled, the first cam controls the entire motion of the valve. The first and second cams are related so that at least one of these cams can operate two adjacent valves for the same cylinder, thus simplifying the overall construction.

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